

Status of independent power producers

653. SHRI SITARAM YECHURY: Will the Minister of POWER be pleased to state:

- (a) the details of Independent Power Producers (IPPs) sanctioned and awarded since 1992, State-wise and project-wise;
- (b) the details of IPPs which are yet to achieve the financial closures; and
- (c) the details of IPPs in generation of power which are failing to meet their given commitment and the reason therefor?

THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE): (a) to (c) Information is being collected and will be laid on the Table of the House.

Utilization of hydro power potential

654. SHRI RAJKUMAR DHOOT: Will the Minister of POWER be pleased to state:

- (a) whether it is a fact that the country is utilizing only 21.5 per cent of the available potential of hydro energy in the country;
- (b) if so, the details thereof and the reasons therefor;
- (c) the demand projections of hydro energy for next five years;
- (d) whether Government have worked out any expansion of existing power generation of hydro power plants and construction of new power projects; and
- (e) if so, the details thereof alongwith the capacities and the likely date of commencement of production at optimum level?

THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE): (a) As per re-assessment studies carried out by Central Electricity Authority (CEA) the exploitable hydro power potential of the country is about 1,48,700 MW. 20.3% of the hydro potential has been developed and 9.2% is under development.

(b) The details of hydro potential developed so far are given in Statement-I (*See below*).

The development of hydro potential has been slow mainly due to the following reasons:

- (i) Difficult/in-accessible sites.
- (ii) Environment, Forest and Wildlife Clearance related problems.
- (iii) Land Acquisition and Rehabilitation problems.
- (iv) Law and order problems.
- (v) Paucity of funds and longer gestation period.
- (vi) Adverse geological conditions.
- (vii) Inter-state aspects.
- (viii) Higher initial construction costs.
- (ix) Apportionment of project cost among various beneficiaries.
- (x) Excessive burden on account of Net Present Value (NPV) etc. with respect to forest lands.

(c) As per the studies carried out by the Central Electricity Authority, the total energy requirement from all sources including hydropower would be about 1038 billion units by the end of financial year 2011-12.

(d) and (e) To meet the demand of projected energy requirement, capacity addition of about 76,000 MW would be required in next five years i.e. by the end of Eleventh Plan. Of this about 16,250 MW is tentatively proposed to be added through hydro projects. The details of hydro electric schemes tentatively identified for benefits during Eleventh Plan alongwith capacity and the likely date of commissioning are given in Statement-II (See below).

Besides, it is tentatively planned to complete renovation, modernization, uprating and life extension of some of the existing hydro power plants which on completion would accrue additional benefits in the installed capacity of about 4,300 MW during the Eleventh Plan.

Statement-I

Status of Hydro Electric Potential Development

(In terms of Installed capacity)

As on 23.02.2007

| Region/State | Identified Capacity as per re- assessment study (MW) | Capacity Developed (MW) | % | Capacity under construction (MW) | (%) | Capacity Developed+Under Development (MW) | (%) | Capacity yet to be developed (MW) | (%) |
|------------------|---|-----------------------------------|-------|--|-------|--|--------|---|-------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| NORTHERN | | | | | | | | | |
| Jammu & Kashmir | 14146 | 1474 | 10.42 | 1289 | 9.11 | 2763 | 19.53 | 11383 | 80.47 |
| Himachal Pradesh | 18820 | 6073 | 32.37 | 4361 | 23.17 | 10434 | 55.44 | 8386 | 44.56 |
| Punjab | 971 | 1298 | 1.00 | 0 | 0.00 | 1298 | 133.64 | 0 | 0.00 |
| Haryana | 64 | 62 | 97.50 | 0 | 0.00 | 62 | 97.50 | 2 | 2.50 |
| Rajasthan | 496 | 430 | 86.69 | 0 | 0.00 | 430 | 86.69 | 66 | 13.31 |
| Uttaranchal | 18175 | 2502 | 13.77 | 2304 | 12.68 | 4806 | 26.44 | 13369 | 73.56 |
| Uttar Pradesh | 723 | 507 | 70.07 | 0 | 0.00 | 507 | 70.07 | 216 | 29.93 |
| SUB TOTAL (NR) | 53395 | 12346 | 23.12 | 7954 | 14.90 | 20300 | 38.02 | 33095 | 61.98 |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------------|-------|------|-------|-----|-------|------|-------|------|--------|
| WESTERN | | | | | | | | | |
| Madhya Pradesh | 2243 | 1919 | 85.53 | 920 | 41.02 | 2839 | 1.00 | 0 | 0.00 |
| Chhattisgarh | 2242 | 130 | 5.80 | 0 | 0.00 | 130 | 5.80 | 2112 | 94.20 |
| Gujarat | 619 | 555 | 89.66 | 0 | 0.00 | 555 | 89.66 | 64 | 10.34 |
| Maharashtra | 3769 | 2651 | 70.34 | 0 | 0.00 | 2651 | 70.34 | 1118 | 29.66 |
| Goa | 55 | 0 | 0.00 | 0 | 0.00 | 0 | 0.00 | 55 | 100.00 |
| SUB TOTAL (WR) | 8928 | 5255 | 58.86 | 920 | 10.30 | 6175 | 69.16 | 2753 | 30.84 |
| SOUTHERN | | | | | | | | | |
| Andhra Pradesh | 4424 | 2018 | 45.60 | 284 | 6.42 | 2302 | 52.02 | 2123 | 47.98 |
| Karnataka | 6602 | 3415 | 51.73 | 230 | 3.48 | 3645 | 55.22 | 2957 | 44.78 |
| Kerala | 3514 | 1839 | 52.32 | 263 | 7.48 | 2102 | 59.80 | 1413 | 40.20 |
| Tamil Nadu | 1918 | 1757 | 91.63 | 60 | 3.13 | 1817 | 94.76 | 101 | 5.24 |
| SUB TOTAL (SR) | 16458 | 9029 | 54.86 | 837 | 5.09 | 9866 | 59.95 | 6592 | 40.05 |
| EASTERN | | | | | | | | | |
| Jharkhand | 753 | 237 | 31.50 | 0 | 0.00 | 237 | 31.50 | 516 | 68.50 |
| Bihar | 70 | 45 | 64.14 | 0 | 0.00 | 45 | 64.14 | 25 | 35.86 |
| Orissa | 2999 | 1862 | 62.07 | 210 | 7.00 | 2072 | 69.07 | 928 | 30.93 |
| West Bengal | 2841 | 157 | 5.51 | 292 | 10.28 | 449 | 15.79 | 2393 | 84.21 |

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| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------|--------|-------|--------|-------|-------|-------|--------|--------|-------|
| Sikkim | 4286 | 84 | 1.96 | 609 | 14.21 | 693 | 16.17 | 3593 | 83.83 |
| SUB TOTAL (ER) | 10949 | 2389 | 21.82 | 1111 | 10.15 | 3500 | 31.97 | 7449 | 68.03 |
| NORTH EASTERN | | | | | | | | | |
| Meghalaya | 2394 | 185 | 7.74 | 84 | 3.51 | 269 | 11.24 | 2125 | 88.76 |
| Tripura | 15 | 15 | 100.00 | 0 | 0.00 | 15 | 100.00 | 0 | 0.00 |
| Manipur | 1784 | 105 | 5.89 | 0 | 0.00 | 105 | 5.89 | 1679 | 94.11 |
| Assam | 680 | 325 | 47.79 | 50 | 7.35 | 375 | 55.15 | 305 | 44.85 |
| Nagaland | 1574 | 99 | 6.29 | 0 | 0.00 | 99 | 6.29 | 1475 | 93.71 |
| Arunachal Pradesh | 50328 | 416 | 0.83 | 2600 | 5.17 | 3016 | 5.99 | 47313 | 94.01 |
| Mizoram | 2196 | 0 | 0.00 | 60 | 2.73 | 60 | 2.73 | 2136 | 97.27 |
| SUB TOTAL (NER) | 58971 | 1145 | 1.94 | 2794 | 4.74 | 3939 | 6.68 | 55032 | 93.32 |
| ALL INDIA | 148701 | 30164 | 20.28 | 13616 | 9.16 | 43780 | 29.44 | 104921 | 70.56 |

In addition to above 3660 MW PSS is under operation and another 2150 MW is-under construction.

Note 1 The above Table does not include schemes below 3 MW upto March'2003 and thereafter upto 25MW

Statement-II

*Hydroelectric schemes tentatively identified for benefits during
Eleventh plan*

| Sl. Name of No. Scheme | State | Installed Capacity (MW) | Benefits During Eleventh Plan | Expected Year of Commi- ssioning |
|---------------------------|------------------|-------------------------------|--|---|
| 1 2 | 3 | 4 | 5 | 6 |
| 1 Parbati-II | Himachal Pradesh | 800 | 400 | 2008-09 |
| 1 Parbati-II | Himachal Pradesh | 800 | 400 | 2009-10 |
| 2 Parbati-III | Himachal Pradesh | 520 | 520 | 2010-11 |
| 3 Chamera-III | Himachal Pradesh | 231 | 231 | 2010-11 |
| 4 Rampur | Himachal Pradesh | 412 | 412 | 2011-12 |
| 5 Kol Dam | Himachal Pradesh | 800 | 600 | 2008-09 |
| 5 Kol Dam | Himachal Pradesh | 800 | 200 | 2009-10 |
| 6 UhI-III | Himachal Pradesh | 100 | 100 | 2009-10 |
| 7 Sawara Kuddu | Himachal Pradesh | 110 | 110 | 2010-11 |
| 8 Allain Duhanagan | Himachal Pradesh | 192 | 192 | 2008-09 |
| 9 Karcham Wangtoo | Himachal Pradesh | 1000 | 1000 | 2011-12 |
| 10 Budhil | Himachal Pradesh | 70 | 70 | 2008-09 |
| 11 Sorang | Himachal Pradesh | 100 | 100 | 2011-12 |
| 12 Malana-II | Himachal Pradesh | 100 | 100 | 2008-09 |
| 13 Tidong-I | Himachal Pradesh | 100 | 100 | 2011-12 |
| 14 Tangnu Romai | Himachal Pradesh | 50 | 50 | 2010-11 |
| 15 Lambadug | Himachal Pradesh | 25 | 25 | 2010-11 |
| 16 URI-II | Jammu & Kashmir | 240 | 240 | 2009-10 |
| 17 Sewa-II | Jammu & Kashmir | 120 | 120 | 2008-09 |
| 18 Baglihar-I | Jammu & Kashmir | 450 | 450 | 2007-08 |

| 1 | 2 | 3 | 4 | 5 | 6 |
|----|----------------------------|----------------|------|-----|---------|
| 19 | Lohari Nagpala | Uttarakhand | 600 | 600 | 2011-12 |
| 20 | Tapovan Vishnugad | Uttarakhand | 520 | 520 | 2011-12 |
| 21 | Tehri PSS | Uttarakhand | 1000 | 500 | 2010-11 |
| 21 | Tehri PSS | Uttarakhand | 1000 | 500 | 2011-12 |
| 22 | Koteswar | Uttarakhand | 400 | 400 | 2008-09 |
| 23 | Srinagar | Uttarakhand | 330 | 330 | 2011-12 |
| 24 | Vyasi | Uttarakhand | 120 | 120 | 2010-11 |
| 25 | ManeriBhali | Uttarakhand | 304 | 304 | 2007-08 |
| 26 | UBDC-III | Punjab | 75 | 75 | 2009-10 |
| 27 | Maheshwar | Madhya Pradesh | 400 | 400 | 2010-11 |
| 28 | Omkareshwar | Madhya Pradesh | 520 | 520 | 2007-08 |
| 29 | Ghatghat | Maharashtra | 250 | 250 | 2007-08 |
| 30 | Nagarjuna Sagar TR | Andhra Pradesh | 50 | 50 | 2009-10 |
| 31 | Jurala Priyadarshni | Andhra Pradesh | 234 | 234 | 2007-09 |
| 32 | Lower Jurala | Andhra Pradesh | 240 | 240 | 2011-12 |
| 33 | Kuttiyadi Extension | Kerala | 100 | 100 | 2008-09 |
| 34 | Adirapally | Kerala | 163 | 163 | 2010-11 |
| 35 | Mankulam | Kerala | 40 | 40 | 2010-11 |
| 36 | Pallivasal | Kerala | 60 | 60 | 2010-11 |
| 37 | Thottiar | Kerala | 40 | 40 | 2010-11 |
| 38 | Varahi Extn. | Karnataka | 230 | 230 | 2008-09 |
| 39 | Bhawani Kattalai Barrag | Tamil Nadu | 60 | 60 | 2009-10 |

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| 1 | 2 | 3 | 4 | 5 | 6 |
|--------|--------------------|-------------------|---------|------|---------|
| 40 | Teesta Low Dam-III | West Bengal | 132 | 132 | 2008-09 |
| 41 | Teesta Low Dam-IV | West Bengal | 160 | 160 | 2009-10 |
| 42 | Purlia PSS | West Bengal | 900 | 675 | 2007-08 |
| 43 | Balimela ST-II | Orissa | 150 | 75 | 2007-08 |
| 44 | Teesta III | Sikkim | 1200 | 600 | 2011-12 |
| 45 | Teesta V | Sikkim | 510 | 510 | 2007-08 |
| 46 | Chujachen | Sikkim | 99 | 99 | 2009-10 |
| 47 | Bhasmey | Sikkim | 51 | 51 | 2010-11 |
| 48 | Sada Mander | Sikkim | 71 | 71 | 2009-10 |
| 49 | Subansiri Lower | Arunachal Pradesh | 2000 | 2000 | 2010-11 |
| 50 | Kameng | Arunachal Pradesh | 600 | 600 | 2009-10 |
| 51 | MyntduST-I | Meghalaya | 84 | 84 | 2008-09 |
| 52 | New Umtru | Meghalaya | 40 | 40 | 2010-11 |
| TOTAL: | | | 16253.0 | | |

Ultra mega power project in Maharashtra

655. SHRIMATI SUPRIYA SULE: Will the Minister of POWER be pleased to state:

(a) whether the Centre's move to develop a 4000 MW ultra mega power project in coastal Sindhudurg district of Maharashtra has been finalized;

(b) if so, whether State Government has conveyed its approval and has given its final agreement for the project; and

(c) if so, when a final decision in this regard is likely to be taken?

THE MINISTER OF POWER (SHRI SUSHILKUMAR SHINDE): (a) to (c) A site at Girye in Sindhudurg district has been identified for setting up